



## Delta Region Quarterly Bee Colony Loss

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**Cooperating with the University of Arkansas – Division of Agriculture, Louisiana Department of Agriculture and Forestry, and Mississippi Department of Agriculture and Commerce**

This report contains the results from the **Quarterly Colony Loss Survey**. The data are also posted on our Web site at <http://www.nass.usda.gov>. Thanks to all who responded to the questionnaires and interviews for this survey.

### April 1, 2018 Inventory Down 31 Percent for Operations with Five or More Colonies

Honey bee colonies for operations with five or more colonies, in the Delta Region as of April 1, 2018 totaled 112,500 colonies. This is 31 percent below the 162,000 colonies on April 1, 2017.

Honey bee colonies lost for operations with five or more colonies during the quarter of April-June 2018, was 7,470 colonies or 6.6 percent lost in the Delta Region. The quarter of April-June 2017 had a loss of 8,300 colonies or 5.1 percent.

### Number of Colonies, Maximum, Lost, Percent Lost, Added, Renovated, and Percent Renovated with Five or More Colonies – Delta Region and United States: April 1, 2018 and April-June 2018

State	April 1 number of colonies (number)	April-June					
		Maximum colonies <sup>1</sup> (number)	Lost colonies (number)	Percent lost <sup>2</sup> (percent)	Added Colonies (number)	Renovated colonies <sup>3</sup> (number)	Percent renovated <sup>4</sup> (percent)
Arkansas	11,500	11,500	1,500	13	14,000	1,900	17
Louisiana	48,000	48,000	970	2	7,000	4,000	8
Mississippi	53,000	54,000	5,000	9	3,900	6,500	12
United States	2,692,660	(X)	270,000	10	725,650	715,110	27

(X) Not applicable.

<sup>1</sup> April 1 number of colonies plus all colonies moved into that state during the quarter.

<sup>2</sup> Percent lost is the number of lost colonies divided by maximum colonies except for the United States, where percent lost is the number of lost colonies divided by the April 1 number of colonies.

<sup>3</sup> Defined as any surviving colony that was requeened or received new honey bees through nuc or package.

<sup>4</sup> Percent renovated is the number of renovated colonies divided by maximum colonies except for the United States, where percent renovated is the number of renovated colonies divided by the April 1 number of colonies.

### Number of Colonies, Maximum, Lost, Percent Lost, Added, Renovated, and Percent Renovated with Five or More Colonies – Delta Region and United States: January 1, 2018 and January-March 2018

State	January 1 number of colonies (number)	January-March					
		Maximum colonies <sup>1</sup> (number)	Lost colonies (number)	Percent lost <sup>2</sup> (percent)	Added Colonies (number)	Renovated colonies <sup>3</sup> (number)	Percent renovated <sup>4</sup> (percent)
Arkansas	22,000	22,000	7,500	34	540	810	4
Louisiana	50,000	52,000	3,600	7	4,100	320	1
Mississippi	19,000	32,000	2,000	6	28,000	5,500	17
United States	2,631,220	(X)	425,220	16	512,940	288,750	11

(X) Not applicable.

<sup>1</sup> January 1 number of colonies plus all colonies moved into that state during the quarter.

<sup>2</sup> Percent lost is the number of colonies divided by the maximum colonies except for the United States, where percent lost is the number of total colonies divided by the January 1 number of colonies.

<sup>3</sup> Defined as any surviving colony that was requeened or received new honey bees through nuc or package.

<sup>4</sup> Percent renovated is the number of renovated colonies divided by maximum colonies except for the United States, where percent renovated is the number of renovated colonies divided by the January 1 number of colonies.

## Varroa Mites Top Colony Stressor in 2017

Varroa mites were the number one stressor for operations with five or more colonies during each of the quarters surveyed in the Delta Region. In Arkansas, the quarter of July through September 2017 had the highest percentage of colonies reported to be affected by varroa mites at 61.4 percent. Louisiana had the highest percentage of colonies reported to be affected by varroa mites July through September 2017 with 59.2 percent. Mississippi had the highest percentage of colonies reported to be affected by varroa mites July through September 2017 with 71.1 percent. April through June 2018 had an increase of the presence of varroa mites in the Delta Region States. The percent of colonies reported to be affected by varroa mites during January through March 2018 are 21.1 percent, 4.9 percent, and 7.0 percent, respectively for Arkansas, Louisiana, and Mississippi.

### Colony Health Stressors with Five or More Colonies – Delta Region: April-June 2018

State	Varroa mites (percent)	Other pests and parasites <sup>1</sup> (percent)	Diseases <sup>2</sup> (percent)	Pesticides (percent)	Other <sup>3</sup> (percent)	Unknown (percent)
Arkansas	35.5	16.0	0.9	2.8	11.4	16.6
Louisiana	8.1	5.9	0.2	0.8	1.2	1.3
Mississippi	44.4	24.1	(Z)	0.2	5.1	2.1

### Colony Health Stressors with Five or More Colonies – Delta Region: January-March 2018

State	Varroa mites (percent)	Other pests and parasites <sup>1</sup> (percent)	Diseases <sup>2</sup> (percent)	Pesticides (percent)	Other <sup>3</sup> (percent)	Unknown (percent)
Arkansas	21.1	9.6	1.0	23.0	4.6	13.9
Louisiana	4.9	0.7	0.2	0.7	4.5	1.6
Mississippi	7.0	4.8	(Z)	0.6	2.4	34.4

### Colony Health Stressors with Five or More Colonies – Delta Region: October-December 2017

State	Varroa mites (percent)	Other pests and parasites <sup>1</sup> (percent)	Diseases <sup>2</sup> (percent)	Pesticides (percent)	Other <sup>3</sup> (percent)	Unknown (percent)
Arkansas	37.5	29.2	26.6	31.0	24.1	0.4
Louisiana	31.5	26.6	0.3	0.6	2.1	10.4
Mississippi	19.3	6.1	1.4	1.5	1.5	4.1

### Colony Health Stressors with Five or More Colonies – Delta Region: July-September 2017

State	Varroa mites (percent)	Other pests and parasites <sup>1</sup> (percent)	Diseases <sup>2</sup> (percent)	Pesticides (percent)	Other <sup>3</sup> (percent)	Unknown (percent)
Arkansas	61.4	9.1	-	17.0	9.3	2.3
Louisiana	59.2	74.5	0.3	1.6	4.0	14.9
Mississippi	71.1	4.8	0.7	0.2	18.1	0.7

### Colony Health Stressors with Five or More Colonies – Delta Region: April-June 2017

State	Varroa mites (percent)	Other pests and parasites <sup>1</sup> (percent)	Diseases <sup>2</sup> (percent)	Pesticides (percent)	Other <sup>3</sup> (percent)	Unknown (percent)
Arkansas	19.4	9.6	1.9	3.9	2.7	2.5
Louisiana	23.2	3.1	-	1.6	1.5	0.7
Mississippi	14.0	0.9	-	1.7	3.7	0.8

### Colony Health Stressors with Five or More Colonies – Delta Region: January-March 2017

State	Varroa mites (percent)	Other pests and parasites <sup>1</sup> (percent)	Diseases <sup>2</sup> (percent)	Pesticides (percent)	Other <sup>3</sup> (percent)	Unknown (percent)
Arkansas	31.5	14.6	0.1	0.5	3.0	1.0
Louisiana	25.8	9.6	0.1	1.8	4.3	1.8
Mississippi	41.7	35.3	(Z)	0.1	0.5	1.4

- Represents zero.

(Z) Less than half of the unit shown.

<sup>1</sup> Tracheal mites, nosema, hive beetle, wax moths, etc.

<sup>2</sup> Includes American and European foulbrood, chalkbrood, stonebrood, paralysis (acute and chronic), kashmir, deformed wing, sacbrood, IAPV, Lake Sinai II, etc.

<sup>3</sup> Includes weather, starvation, insufficient forage, queen failure, hive damage/destroyed, etc.